Automated Data Sharing between the Janus and ERA radiobiology archives

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More than 200 radiobiology megastudies were conducted in the second half of the 20th century. The data and samples generated from these studies are unparalleled in scope and unlikely to be reproduced. Archival efforts focused on disseminating the results and tissues generated by these studies have been underway for the past 20 years under the oversight of researchers from America, Europe, and Japan. The Woloschak laboratory hosts one of the largest sets of radiobiological mouse studies ever conducted, the Janus studies, which involved more than 50,000 mice. The European Radiobiology Archives (ERA) has built the largest single repository of radiobiology data soon to be available on the web. These two large archives both contain unique data about the Janus studies that is more valuable when integrated. To facilitate this integration without modifying each groups underlying databases, both the Janus Archive and the ERA have developed web data services. These data services allow the hosting servers to request information from one another. The result of this effort is that the Janus archive can retrieve experiment description information from the ERA's archive, while the ERA's archive can receive pathological and demographic information for specific mice from the Janus archive. This architecture will allow improvements to the archives records to be reflected on both sites without the need to update both of them. As a useful side benefit, these same web services can be employed by any researcher to retrieve annotated data from the archives for statistical purposes or other forms of redistribution.

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